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assembly comprising an air aspirated nozzle, a compressor to provide air under pressure to said air aspirated nozzle, a fuel supply to supply liquid fuel at ambient pressure to said air aspirated nozzle, said liquid fuel being introduced to said air aspirated nozzle in liquid form, and a metering valve interposed between said liquid fuel supply and said air aspirated nozzle, said metering valve being adjustable during operation of said burner assembly to increase or decrease the liquid fuel supplied to said air aspirated nozzle from said liquid fuel supply.

REMARKS

Claim 1 has been amended to clearly distinguish over newly cited Reichhelm United States Patent 3,361,183 and requires the fuel to be introduced to the nozzle in liquid form. Claims 1-8 remain in this application and stand for examination. Reconsideration and reexamination are requested in view of the foregoing amendments and the comments made hereinafter.

Rejection of claims 1-8 for obviousness

The Examiner rejects claims 1-8 under 35 U.S.C. 103(a) as being obvious over Nutten et al United States Patent 3,428,406 in view of Willms et al United States Patent 5,842,854.

The earlier cited and earlier discussed (see applicants papers dated June 11, 2001 and February 1, 2002) Nutten et al reference does not teach adjustable fuel flow to the nozzle and does not disclose a metering valve between the nozzle and the fuel supply as the Examiner has and continues to correctly note. The Willms reference does not serve to assist this deficiency in the Nutten et al reference.

Willms et al teach a metering element 90 but that metering element (a baffle as shown clearly in Figure 6) does not act to increase or decrease the flow of liquid fuel. Rather, Willms et al pertains to combustible gas (col. 7, lines 26-28). Further, the metering element is not a valve. There would be no

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utility in combining the baffle of Willms et al with the Nutten et al apparatus. This combination would not produce an adjustable metering valve metering fuel between the liquid fuel supply and the nozzle according to the present application and reconsideration is requested.

Alternately, the Examiner rejects claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over aforementioned Nutten et al in view of newly cited Reichhelm United States Patent 3,361,183.

Nutten et al have been discussed above. Reichhelm teaches a liquid fuel supply as the Examiner notes but the liquid fuel is gasified before it reaches the nozzle. See col. 6, lines 4-10. Following the initial gasification of the liquid fuel by the "band heater 18" which is "...energized for a time sufficient to effect the initial gasification of the liquid fuel..." (col. 6, lines 6-7), the "...heat of the recirculated gases is now utilized to effect the necessary gasification of the liquid fuel within the gasifying chamber." (col. 6, lines 36-39). So, it is quite clear that the liquid fuel does not reach the nozzle in liquid form.

While claim 1 in unamended form would appear to distinguish over the Nutten et al references because of the requirement for liquid fuel to be supplied to the nozzle, today's amendment makes it now abundantly clear that the fuel is introduced in liquid form at the nozzle. This distinguishes over the Nutten et al and Reichhelm references taken singly or in combination. They do not teach, singly or in combination, adjustable liquid fuel flow with liquid fuel being introduced to the nozzle.

The remaining references are noted.

Today's paper is accompanied by a marked up version of claim 1 which is entitled "VERSION WITH MARKINGS TO INDICATE CHANGES MADE".

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In view of the above, reconsideration and withdrawal of the objections and rejections is requested and allowance of claims 1-8 at an early date is respectfully solicited.

Respectfully submitted,

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VERSION WITH MARKINGS TO INDICATE CHANGES MADE

1. [Three Times Amended] An infrared burner assembly comprising an air aspirated nozzle, a compressor to provide air under pressure to said air aspirated nozzle, a fuel supply to supply liquid fuel at ambient pressure to said air aspirated nozzle, said liquid fuel being introduced to said nozzle in liquid form, and a metering valve interposed between said liquid fuel supply and said air aspirated nozzle, said metering valve being adjustable during operation of said burner assembly to increase or decrease the liquid fuel supplied to said air aspirated nozzle from said liquid fuel supply.